

Illinois Institute of Technology Research Institute
10 West 35th Street
Chicago, Illinois 60616

Bioenergetic and Endocrine Studies on Cigarette Smoke and Stress Interrelationships.

The research program is designed to extend our knowledge with regard to the earlier finding that gaseous components of cigarette smoke have different effects upon electron transport and phosphorylation coupling at different cytochrome loci in mitochondria. Hence in the research program proposed for the following year, the emphasis will be placed upon the inhibitory effects of smoke components upon cytochrome oxidase and consequent interactions in the electron transport chain upon coupling activity at cytochrome b. Work toward the identification of the site II uncoupling factor and study of its mechanisms of release from the catecholamine-stimulated cell plasma membrane, as well as the mitochondrial uncoupling, will continue. Attempts will be made to develop a stress assay system for human application using several types of accessible cells.

Activation Date: June 1, 1972

Current Contract Level: \$111,847.

1005075597